

## METHODS AND APPARATUS FOR MINIMIZING EVAPORATION OF SAMPLE MATERIALS FROM MULTIWELL PLATES

### ABSTRACT OF THE DISCLOSURE

Methods and devices for reducing evaporation of sample materials from the wells of multiwell plates are disclosed which find particular utility when the plates are placed in a stacked configuration. An example of the methods includes providing at least a first multiwell plate which is configured to be placed in a stacked configuration with at least one second multiwell plate, the at least first multiwell plate having a plurality of wells for receiving sample material therein and opposing side walls which extend around the plate and which define a ridge spaced inwardly of the side walls and extending around the plate between the side walls and the plurality of wells, the method including at least partially filling the ridge with a liquid such as water or buffer solution. The ridge can include one or more ribs which extend upwardly from a lower surface of the ridge to help reduce sloshing of the liquid contained within the ridge and to add structural strength and rigidity to the multiwell plate. The second multiwell plate can be provided with a downwardly extending flange which extends around a lower surface of the plate and which is configured to be removably received by the ridge of the at least first multiwell plate such that when the second multiwell plate is removably positioned on top of the at least first multiwell plate in a stacked configuration, the flange extends at least partially into the ridge and contacts the liquid to thereby create a substantial evaporation barrier to minimize evaporation of sample liquids in the wells of the at least first multiwell plate.